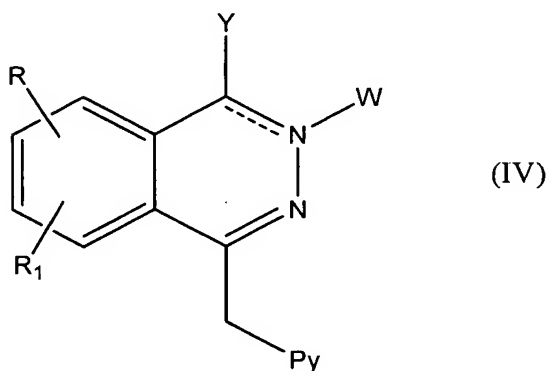


AMENDMENTS TO THE CLAIMS

1. - 10. (Canceled)

11. (Currently Amended) A process for preparing phthalazines of formula



and salts thereof

wherein Py represents a 2, 3 or 4-pyridinyl group optionally substituted by one or more substituents selected from halogen, nitro, cyano, oxo and carboxy:

R and R<sub>1</sub>, which may be the same or different between them, represent hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl or a group OR<sub>2</sub> wherein R<sub>2</sub> represents a linear or branched C<sub>1</sub>-C<sub>6</sub> alkyl, a C<sub>4</sub>-C<sub>7</sub> cycloalkyl or a C<sub>1</sub>-C<sub>6</sub> polyfluoroalkyl;

----- is a single or double bond;

Y represents two hydrogen atoms or a group =O when ----- is a single bond, or when ----- is a double bond Y is hydrogen, cyano, (C<sub>1</sub>-C<sub>4</sub>)-alkoxycarbonyl, amido, optionally substituted aryl or heterocyclyl, (C<sub>1</sub>-C<sub>8</sub>)-alkyl, (C<sub>1</sub>-C<sub>8</sub>)-cyclylamino;

W is absent when ----- is a double bond or, when ----- is a single bond, it represents

a) hydrogen;

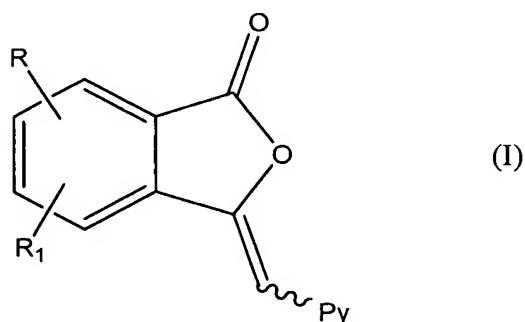
b) (C<sub>1</sub>-C<sub>6</sub>)-alkyl optionally substituted by aryl, heterocyclyl or by a group COR<sub>5</sub> wherein R<sub>5</sub> is hydroxy, (C<sub>1</sub>-C<sub>4</sub>)-alkoxy or hydroxyamino;


c) -COR<sub>6</sub> wherein R<sub>6</sub> is hydrogen, aryl, aryl-(C<sub>1</sub>-C<sub>6</sub>)-alkyl, optionally alkylated or monohydroxylated amino, hydroxy, (C<sub>1</sub>-C<sub>4</sub>)-alkoxy, carboxy, (C<sub>1</sub>-C<sub>4</sub>)-alkoxycarbonyl,

$\text{HN}=\overset{\text{I}}{\text{C}}-\text{NH}_2$ , or (C<sub>1</sub>-C<sub>4</sub>)-alkyl optionally substituted by a heterocycle;

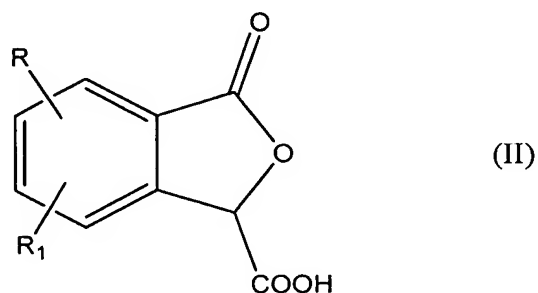
d) (C<sub>1</sub>-C<sub>4</sub>)-alkylsulfonyl;

which comprises the preparation of ~~the~~ an intermediate of formula I



wherein R, R<sub>1</sub> and Py have the above reported meanings and the bond  indicates both the isomers E and Z;

wherein said process comprises reacting a compound of formula II



wherein R and R<sub>1</sub> have the meanings above reported; with an aldehyde of formula



wherein Py has the above reported meaning; by heating of the mixture of the compounds of formula II and III in the presence of an anhydride and optionally in admixture with a suitable solvent, to form the intermediate of formula I and subsequently

reacting the intermediate of formula I with hydrazine monohydrate to form a phthalazine of formula IV.

12. (Previously Presented) The process according to claim 11 wherein Py represents a dihalosubstituted 4-pyridinyl group.

13. (Previously Presented) The process according to claim 12 wherein Py represents a 3,5-dichloro-4-pyridinyl group.

14. (Previously Presented) The process according to claim 11 wherein one or both between R and R<sub>1</sub> represent OCH<sub>3</sub>.

15. (Previously Presented) The process according to claim 11 wherein the compounds of formula III are employed with respect to the compounds of formula II in a molar ratio from 0.5 to 4.

16. (Previously Presented) The process according to claim 15 wherein the compounds of formula III are employed with respect to the compounds of formula II in a molar ratio from 0.8 to 1.5.

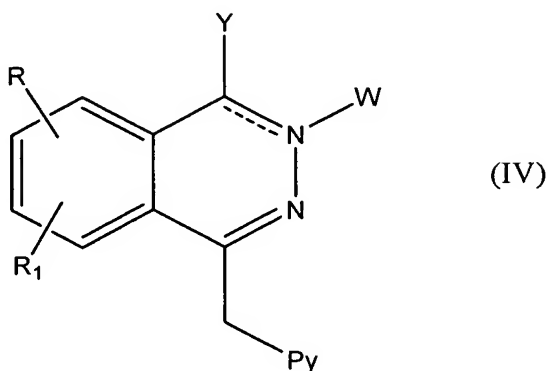
17. (Currently Amended) A The process according to claim 16 wherein the compounds of formula III are employed with respect to the compounds of formula n in a molar ratio from 0.9 to 1.1.

18. (Currently Amended) A The process according to claim 11 wherein the anhydride is an organic anhydride.

19. (Currently Amended) A The process according to claim 18 wherein the anhydride is acetic anhydride.

20. (Currently Amended) A The process according to claim 11 wherein the anhydride is used in an excess.

21. (New) In a process for preparing phthalazines of formula



and salts thereof from an intermediate of  
 formula I

wherein Py represents a 2, 3 or 4-pyridinyl group optionally substituted by one or more substituents selected from halogen, nitro, cyano, oxo and carboxy:

R and R<sub>1</sub>, which may be the same or different between them, represent hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl or a group OR<sub>2</sub> wherein R<sub>2</sub> represents a linear or branched C<sub>1</sub>-C<sub>6</sub> alkyl, a C<sub>4</sub>-C<sub>7</sub> cycloalkyl or a C<sub>1</sub>-C<sub>6</sub> polyfluoroalkyl;

----- is a single or double bond;

Y represents two hydrogen atoms or a group =O when ----- is a single bond, or when ----- is a double bond Y is hydrogen, cyano, (C<sub>1</sub>-C<sub>4</sub>)-alkoxycarbonyl, amido, optionally substituted aryl or heterocyclyl, (C<sub>1</sub>-C<sub>8</sub>)-alkyl, (C<sub>1</sub>-C<sub>8</sub>)-cyclylamino;

W is absent when ----- is a double bond or, when ----- is a single bond, it represents

a) hydrogen;

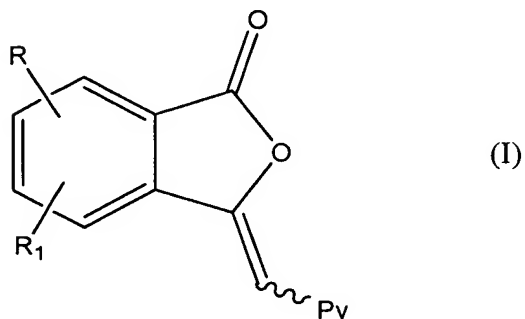
b) (C<sub>1</sub>-C<sub>6</sub>)-alkyl optionally substituted by aryl, heterocyclyl or by a group COR<sub>5</sub> wherein R<sub>5</sub> is hydroxy, (C<sub>1</sub>-C<sub>4</sub>)-alkoxy or hydroxyamino;

c) -COR<sub>6</sub> wherein R<sub>6</sub> is hydrogen, aryl, aryl-(C<sub>1</sub>-C<sub>6</sub>)-alkyl, optionally alkylated or monohydroxylated amino, hydroxy, (C<sub>1</sub>-C<sub>4</sub>)-alkoxy, carboxy, (C<sub>1</sub>-C<sub>4</sub>)-alkoxycarbonyl,

HN=C(NH<sub>2</sub>), or (C<sub>1</sub>-C<sub>4</sub>)-alkyl optionally substituted by a heterocycle;

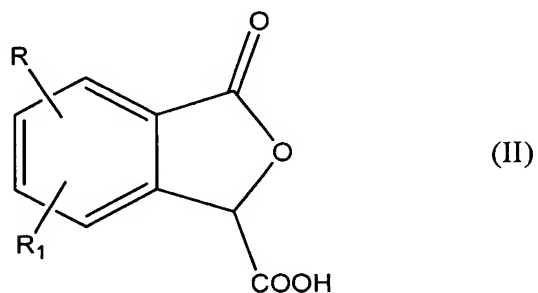
d) (C<sub>1</sub>-C<sub>4</sub>)-alkylsulfonyl;

wherein the intermediate of formula I is



wherein R, R<sub>1</sub> and Py have the above reported meanings and the bond ~~~~~ indicates both the isomers E and Z;

the improvement comprising making the intermediate of formula I by a process comprising reacting a compound of formula II



wherein R and R<sub>1</sub> have the meanings above reported; with an aldehyde of formula



wherein Py has the above reported meaning; by heating of the mixture of the compounds of formula II and III in the presence of an anhydride and optionally in admixture with a suitable solvent.

22. (New) The method according to claim 21 wherein Py represents a dihalosubstituted 4-pyridinyl group.

23. (New) The method according to claim 22 wherein Py represents a 3,5-dichloro-4-pyridinyl group.

24. (New) The method according to claim 21 wherein one or both between R and R<sub>1</sub> represent OCH<sub>3</sub>.

25. (New) The method according to claim 21 wherein the compounds of formula III are employed with respect to the compounds of formula II in a molar ratio from 0.5 to 4.

26. (New) The method according to claim 25 wherein the compounds of formula III are employed with respect to the compounds of formula II in a molar ratio from 0.8 to 1.5.

27. (New) The method according to claim 26 wherein the compounds of formula III are employed with respect to the compounds of formula n in a molar ratio from 0.9 to 1.1.

28. (New) The method according to claim 21 wherein the anhydride is an organic anhydride.

29. (New) The method according to claim 28 wherein the anhydride is acetic anhydride.

30. (New) The method according to claim 21 wherein the anhydride is used in an excess.

SUPPORT FOR THE AMENDMENTS

Claims 11 and 17-20 have been amended.

Claims 21-30 have been added.

The amendment of Claims 11 and 17-20 is supported by the corresponding claims as previously presented, as well as the specification at pages 4-8. New Claims 21-30 are supported by pages 1-8, the Examples, and the originally presented claims.

No new matter has been added by the present amendment.